

REMARKS

Claims 11, 13-16, 18-20, and 28-53 are now pending in the application. Claims 18, 20, 34-37, and 44 are withdrawn by this amendment. Claims 51-53 are added by this amendment. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

APPLICANT INITIATED INTERVIEW

Applicants' representative has made several unsuccessful attempts to contact the Examiner in the present application to conduct an interview. Applicants are filing this amendment with a request for an interview to discuss the pending claims and the cited art. **Applicants request that such an interview be granted and Applicants be given opportunity to further amend the claims in light of the interview prior to any further action of the Office.**

SPECIES ELECTION

Applicants affirm the previous species election of Figure 3, however, Applicants note that the embodiment illustrated in Figure 3 is also illustrated, in various perspectives, in Figure 4 and 5. In light of this, the originally indicated Claims 11, 13 – 17, 19, 28 – 33, 38 – 43, and 47 – 52 read on this species. Moreover, Claims 45 and 46 also read on the elected species. Applicants submit that these claims should be examined at this time in light of Applicant's species election.

REJECTION UNDER 35 U.S.C. § 102 AND 103

Claims 11, 13, 19, 20, 28, 32, 33, 39, 41, 42, 48, 49 and 50 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Barrick et al. (U.S. Pat. No. 2002/0087101). Claims 16, 17, 38 and 47 stand rejected under 35 U.S.C. § 103(a) as being anticipated over Barrick et al. (U.S. Pat. No. 2002/0087101). Claims 29, 31, 40 and 43 stand rejected under 35 U.S.C. § 103(a) as being anticipated over Barrick et al. Claim 30 stand rejected under 35 U.S.C. § 103(a) as being anticipated over Barrick et al. (U.S. Pat. No. 2002/0087101) in view of Ferre et al. (U.S. Pat. No. 5,800,352). These rejections are respectfully traversed.

Applicants note that Claims 14, 15, 45, and 46 have not been indicated as rejected by any of the cited references. Applicants believe, therefore, that these claims are in condition for allowance and request that the Examiner so indicate on any further action.

Initially, Applicants note that Barrick et al. is directed to a contour determination system for automatic shape recognition and registration. Applicants note that the matching system includes a curvature sensor which includes optical fibers, conductors whose electrical resistance varies as they are bent, conductive polymers, and other similar materials. See Barrick et al. paragraphs 39 and 40. A similar curvature sensor is attached to a tool. See Barrick et al. paragraph 46. The curvature sensors allow for the near automatic registration of the patient to the image study data set interoperatively. See Barrick et al. paragraph 36. Therefore, Barrick et al. is directed to a system such as a computer using shape matching software that unites fiducial bands with the graphic shape of the curvature sensors. See Barrick et al. paragraph 50.

Ferre et al. is directed to a system for monitoring the position of a medical instrument with respect to the patient body. See Ferre et al. Abstract.

Contrary to Barrick et al. and Ferre et al., either alone or in combination, independent Claim 11 recites “a body portion selectively attachable to a portion of the anatomy, the body portion having a sidewall defining an exterior perimeter defining an interior portion and a passage through the sidewall into the interior portion; a navigation portion to at least one of sense, transmit, or combinations thereof a characteristic operable to pass through the passage defined by the sidewall and be positioned in the interior portion”. Applicants submit that neither Barrick et al. nor Ferre et al. anticipate or render obvious an adhesive receiving section or a passage that can be used to position a navigation portion as recited here. For example, a holding section to hold the body portion relative to the portion of the anatomy is not anticipated by Barrick et al. Further, Applicants respectfully submit that a navigation portion is not disclosed that can at least one of sense, transmit, or combinations thereof a characteristic. Therefore, independent Claim 11 is in condition for allowance in light of Barrick et al. and Ferre et al.

Further, the claims that depend directly or indirectly from independent Claim 11 include a patentable subject matter and are in condition for allowance. As indicated above, Claims 14 and 15 are not rejected under any of the cited art. Further, dependent Claim 50 recites “an adhesive receiving section”. Applicants respectfully submit that Barrick et al. and Ferre et al. do not anticipate or render obvious an adhesive receiving section associated with the elements recited in independent Claim 11.

Independent Claim 28 recites "a body portion . . . a navigation portion . . . a holding section operable to contact an exterior of the portion of the anatomy . . . and a fiducial portion operable to be imaged and determined in the image data; wherein the body portion defines a volume enclosed by an outer surface and a recess within the outer surface of the body portion; wherein the body portion defines a concave area operable to engage at least a portion of a tensioning member to assist in holding the body portion relative to the portion of the anatomy." Applicants that submit that at least a fiducial portion with a body portion and a navigation portion is not anticipated or rendered obvious by Barrick et al. and Ferre et al., as recited in Claim 28. In addition, a concave area to engage at least a portion of a tension member is allowable over Barrick et al. and Ferre et al. Therefore, independent Claim 28, and each of the claims that depend directly or indirectly therefrom, is in condition for allowance.

Further, various claims that depend from independent Claim 28 also include allowable subject matter. For example, dependent Claim 29 recites "wherein said body portion defines a volume enclosed by an outside surface; wherein said body portion further defines a recess within the volume to receive the navigation portion." Applicants respectfully submit that Barrick et al. and Ferre et al. do not anticipate or render obvious such a volume or a body portion to receive the navigation portion.

Dependent Claim 30 recites "a coil of conducting material; wherein said characteristic is an electromagnetic field". Applicants respectfully submit that it is not apparent to one skilled in the art to combine Barrick et al. and Ferre et al. to teach each of the elements of dependent Claim 30. As discussed above, Barrick et al. is directed to a curvature sensor operable to determine light transmittance, resistance, and the like

based on the contour of the patient. Contrary to this, Ferre et al. is directed to a system that is rigidly positioned relative to a patient, as illustrated in Fig. 1 of Ferre et al. Therefore, there is no apparent reason to combine Barrick et al. and Ferre et al., and actually Barrick et al. teaches away from a combination with a device of Ferre et al. Therefore, dependent Claim 30 is neither anticipated nor rendered obvious by Barrick et al. and Ferre et al.

Dependant Claim 39 recites "a localization divot." As discussed above, Barrick et al. is directed to an automatic registration system, and therefore does not disclose and actually teaches away from a localization divot as recited in dependent Claim 39.

Dependent Claim 40 recites "a recess having a surface positioned within the at least one of the body portion; the holding section, or combinations thereof." Applicants agree with the Examiner that Barrick et al. does not anticipate such a configuration. Moreover, Barrick et al. is directed to a substantially flat member that includes optic fibers, wires, or the like. Therefore, it is contrary to Barrick et al. to include a recess that can be positioned into any portion that could reasonably be the body portion or the holding section. Moreover, Applicants respectfully submit that improper hindsight reasoning is being used to determine that the structural characteristic recited in dependent Claim 40 would be obvious. Therefore, dependent Claim 40 should also be in condition for allowance.

Independent Claim 41 recites "a first section defining a volume . . . a tracking device. . . and a holding section associated with the first section and operable to assist in holding the first section relative to the portion of the anatomy." For reasons similar to the allowability of independent Claim 11 and 28, independent Claim 41 should also be

in condition for allowance in light of Barrick et al. and Ferre et al. Further, any of the claims that depend directly or indirectly from independent Claim 41 should also be in condition for allowance.

Various claims that depend from independent Claim 41 also include patentable subject matter. For example, dependent Claim 43 recites “a recess that is complementary in shape to the tracking device and is operable to receive the tracking device substantially within the volume.” Applicants respectfully submit that Barrick et al. does not anticipate or render obvious such a structural configuration. Similar to dependent Claim 40, Applicants submit that improper hindsight reasoning is being used in the rejection of dependent Claim 43. Moreover, Barrick et al., which is directed to optic fibers, wires, and the like, does not reasonably describe a device that can include the structural limitations of dependent Claim 43. Similarly, dependent Claims 45 and 46 include structural limitations not anticipated or rendered obvious by Barrick et al. Barrick et al. illustrates only a substantially flat and thin element affixed to the patient to allow for the determination of curvature of the patient.

Dependent Claim 49 recites “a localization depression”. As discussed above, Barrick et al. is directed to a substantially automatic registration and, therefore, does not anticipate and actually teaches away from a localization depression as recited in dependent Claim 49. Therefore, Applicants submit that neither Barrick et al. nor Ferre et al. anticipate or render obvious at least “a localization depression”, as recited in Claim 49.

Claim 50 recites, “wherein said body portion has an adhesive receiving section that is recessed into the body portion; wherein said adhesive receiving section is

operable to receive an adhesive". Applicants respectfully submit that neither Barrick et al. nor Ferre et al. anticipate or render obvious an adhesive receiving section.

In light of the above, Applicant submit that all pending claims are in condition for allowance as all of the outstanding rejections have been overcome or rendered moot.

New Claims

New Claims 51-52 are neither anticipated nor rendered obvious by Barrick et al. and Ferre et al. Support for the new Claims can be found throughout the application as filed, including Figures 3 – 5.

Also, Barrick et al. and Ferre et al., either alone or in combination, do not anticipate or render obvious at least "a passage through the sidewall into an interior of the body portion; wherein the navigation portion is positionable through the sidewall into the body portion", as recited in Claim 51.

Claim 52 recites, "a central trough area that is substantially concave having a first peak on a first side of the body portion and a second peak on a second side of the body portion substantially opposed to each other and a tensioning member extending from said body portion". Applicants submit that such a configuration is not anticipated or rendered obvious by Barrick et al. and Ferre et al. Claim 53 further limits the device and is also in condition for allowance.


Therefore, Applicants submit that all of the new dependent claims include patentable subject matter and are in condition for allowance.

Conclusion

It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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